

EP1310-DM-T Series

1310nm Discrete Mode Lasers - TO Can



FEATURES

- Single wavelength emission in 1310nm band
- High Immunity to Optical Feedback compared with DFB-type lasers
- Wide Operating Temperature Range
- InAlGaAs composition for reliable uncooled operation
- High Bandwidth - up to 2.5Gbps
- Excellent RIN-OMA performance without optical isolation

APPLICATIONS

- FTTH
- PON (GEPON, GPON)
- High Speed Access Optical Links
- High Speed Datacoms
- Digital Transport Links (SDH/SONET)

ELECTRO-OPTICAL CHARACTERISTICS (T = 25°C unless stated otherwise):

PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT	TEST CONDITIONS
Threshold Current	I_{th}		12	18	mA	CW, T=25°C
			23	35		CW, T=70°C
			30	45		CW, T=85°C
Operating Current	I_{op}		32	42	mA	CW, $P_O = 5mW$
Peak Wavelength	λ	1290	1310	1330	nm	CW, $P_O = 5mW$, $T_{min} < T < T_{max}$
Wavelength Temperature coefficient			0.09		nm / °C	CW, $T_{min} < T < T_{max}$
Side Mode Suppression Ratio	SMSR	30	40		dB	CW, $T_{min} < T < T_{max}$
Quantum Efficiency	η	0.20	0.25		mW/mA	CW, $P_O = 1$ to $5mW$
Forward Voltage	V_f		1.3	1.6	Volts	$I = I_{op}$, T=25°C
Output Power at Threshold				200	μW	T=25°C
Beam divergence (perpendicular)	(θ_{\perp})		28		degrees	CW, $P_O = 5mW$
Beam divergence (parallel)	(θ_{\parallel})		20		degrees	CW, $P_O = 5mW$
Rise time/fall time						
155 Mbps version				700	ps	$I = I_{op}$
1.25 Gbps version				250	ps	$I = I_{op}$
2.50 Gbps version				120	ps	$I = I_{op}$
Monitor output current	I_{mon}	95			μA	
Monitor PD terminal capacitance				20	pF	

Note: Unless otherwise stated measurements performed with a flat form window.

ABSOLUTE MAXIMUM RATINGS:

PARAMETER	CONDITION	MIN	MAX	UNIT
Forward Current (PD)			2	mA
Forward Current Transient (LD)	1 μs max		150	mA
Reverse Voltage (LD)			2	Volts
Reverse Voltage (PD)			15	Volts
Case Temperature (T)		T_{min}	T_{max}	
Grade B		0	70	°C
Grade F		0	85	°C
Grade Q		-40	85	°C
Storage Temperature		-40	85	°C



PACKAGE:

The EP1310-DM-T product series is offered in a TO 56 package format - see package outline drawings below (Fig 1). The package pinout may be specified according to the options shown in Fig 2.

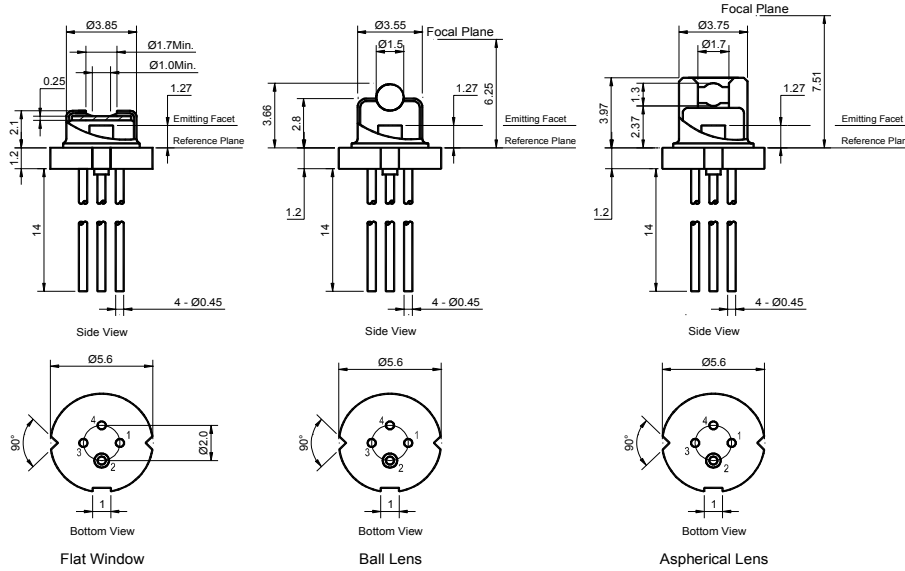
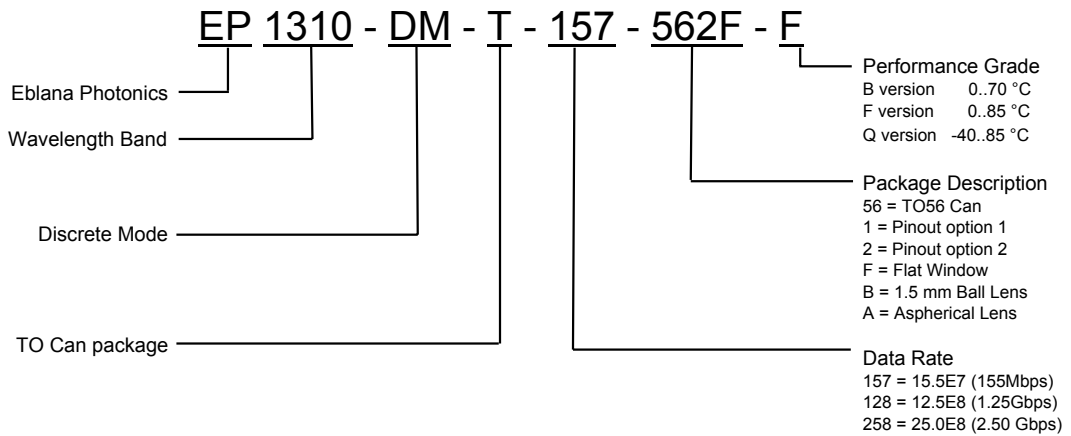


Fig. 1 - Package Outlines

Fig. 2 - Pinout Options

HOW TO ORDER (example):

Please use the following example as a guide to building the appropriate part number for the device you require:



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